What is claimed is:

14

A method for representing HMI user screens comprising the activities of:
obtaining an organization and a hierarchy of a collection comprising a
plurality of HMI screen nodes;

determining an arrangement of the collection; and rendering the collection according to the arrangement.

- 2. The method of claim 1, further comprising calculating a position of a leaf.
- 3. The method of claim 1, further comprising calculating a position of a visible leaf.
- 4. The method of claim 1, further comprising calculating a position of a parent.
- 5. The method of claim 1, further comprising detecting a collision.
- 6. The method of claim 1, further comprising updating a position of a parent.
- 7. The method of claim 1, further comprising updating a position of a parent upon detecting a collision.
- 8. The method of claim 1, further comprising recursively calculating a position of each of the plurality of HMI screen nodes.
- 9. The method of claim 1, further comprising recursively calculating a position of each of the plurality of HMI screen nodes and updating a position of a parent upon detecting a collision.
- 10. The method of claim 1, further comprising changing the visibility of a node.
- 11. The method of claim 1, further comprising changing the visibility of a node and children of the node.

- 12. The method of claim 1, wherein the arrangement is a tree arrangement.
- 13. The method of claim 1, wherein the arrangement is a vertical tree arrangement.
- 14. The method of claim 1, wherein the arrangement is a horizontal tree arrangement.
- 15. The method of claim 1, wherein the arrangement is rendered with equal intergenerational node spacing.
- 16. The method of claim 1, wherein the arrangement is rendered with equal intragenerational node spacing.
- 17. The method of claim 1, wherein the arrangement is rendered with each parent aligned centrally to all children of that parent.
- 18. The method of claim 1, wherein the arrangement is rendered with all nuclear children separated equally.
- 19. A machine-readable medium containing instructions for activities comprising: obtaining an organization and a hierarchy of a collection comprising a plurality of HMI screen nodes;

determining an arrangement of the collection; and rendering the collection according to the arrangement.

20. A device for providing a representation of user screens for an HMI comprising: means for obtaining an organization and a hierarchy of a collection comprising a plurality of HMI screen nodes;

means for determining an arrangement of the collection; and means for rendering the collection according to the arrangement.